

ABSTRACT OF THE DISCLOSURE

[0051] Methods for analyzing particle systems of surface facets using polarized scattered light are provided. An exemplary method comprises the steps of: providing models of multiple arbitrary particle systems, the particle system comprising surface facets; performing ray-trace analysis with respect to the models over a range of back-scatter angles, the ray-trace analysis involving only use of second-order rays; receiving information corresponding to a particle system of interest; and predicting at least one characteristic of the particle system of interest using information generated during the ray-trace analysis. Systems and other methods are provided.